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SYNONYMICAL NOTES ON BEMBIDIUM AND DESCRIPTIONS OF NEW SPECIES.

BY ROLAND HAYWARD.

Since the publication of my paper on the North American species of *Bembidium*,* I have had, through the kindness of Mons. René Oberthür, of Rennes, an opportunity to study the types of those species of that genus described by Baron Chaudoir which were then unknown to me, and the original descriptions of which were published in the appendix. I have thus been enabled to determine their synonymy, which entails, however, but few changes in our nomenclature. This it is proposed to give in the present paper. One new species has also been described, which, although represented by an unique in my cabinet, seems too distinct to remain longer without a name. My collection still contains several examples which cannot be satisfactorily placed, but as they are mostly uniques and are all referable either to group *planatum* or group *variegatum*, both very troublesome ones, it seems best to let them remain undescribed until such time as the limits of variation shall be more clearly determined in the groups to which they belong.

B. ænulum n. sp.—Form robust, very convex. Color bronzed, somewhat shining, the elytra with the margin and punctures greenish; surface alutaceous. Head slightly wider than the thorax at apex; eyes large, prominent; antennæ about as long as the head and thorax, piceous, the basal joints paler; palpi testaceous, darker towards the tip. Prothorax subtrapezoidal, very distinctly wider at base than apex, about one-half wider than long; apex bi-emarginate, the anterior angles prominent and acute; transverse impressions obsolete; median line very fine, entire; basal impressions very feeble, single; surface finely rugose at base and apex; base truncate, obliquely so each side; sides very finely margined, slightly arcuate in front, very feebly sinuate in front of the hind angles, which are subrectangular and not carinate. Elytra about one-half wider than the thorax, oblong-ovate, subparallel, deeply striate; humeri subangulate; striæ punctate, scarcely less deeply towards the apex, entire, the fifth slightly grooved at tip, the eighth distinct from the margin; dorsal punctures two, situated on the third interval near the third stria, the first about the middle, the second about one-fourth from apex; intervals slightly convex. Body beneath black, tinged with greenish, shining. Legs testaceous. Length .17 inch; 4.25 mm.

* Tr. Am. Ent. Soc., 1897, xxiv, pp. 32-143.

A very singular little species belonging to the group *coxendix* of my monograph. It seems best placed between *sculpturatum* and *robusticolle*.

It is known to me by one female from Cedar Co., Iowa.

B. dilatatum Lec.

B. platyderum Chaud. is synonymous with this species.

B. rufotinctum Chaud.

This name must be substituted for *blanchardi* Hayw. A comparison of the types shows that the two are identical. Under his description Chaudoir gives no locality, merely stating that it was received from Guex. The "faux air de *planum*" mentioned is quite expressive.

B. viridicolle Laf.—Form moderately elongate, slightly depressed. Color dark æneous or nearly black, the head and thorax distinctly tinged with green and strongly alutaceous, the elytra more finely alutaceous, with an ill-defined marginal spot about one-third from base extending inwards as far as the fifth interspace and also for some distance along the margin, a more distinct apical spot and the inflexed portion pale. Head as wide as the thorax at apex; eyes large, prominent; frontal grooves distinct; antennæ about one-half as long as the body, rufous, the outer joints scarcely darker; palpi rufous. Prothorax subcordate, about one-half wider than long, distinctly narrower at base than apex; apex subtruncate; transverse impressions nearly obsolete; median line very fine, abbreviated at each end; basal impressions distinct, bistriate; base subtruncate; sides with the margin very narrowly reflexed, strongly arcuate, sinuate in front of the hind angles, which are subrectangular and very finely carinate. Elytra oblong-ovate, about one-half wider than the thorax, finely striate; striæ distinctly punctate to behind the middle, the first, second and fifth entire, the latter grooved at tip; intervals nearly flat; dorsal punctures on the third interval, the first about one-third from base, the second about one-third from apex. Body beneath nearly black. Legs rufous. Length .20 inch; 5 mm.

The apical spot referred to in the description is apparently composed of a subapical and an apical one united, that of the two elytra together having somewhat the form of a horse-shoe, as remarked by Chaudoir.

It is closely allied to *cordatum* and should be placed in our lists between that species and *nubiculosum*. To the kindness of Mons. Oberthür I am indebted for an opportunity of studying La Ferté's type.

I have compared an example of *hamiferum* Chaud., received from Mons. Oberthür, with the type of *viridicolle*, and can detect no difference between them. As the specimen of *hamiferum* had been

carefully compared with Chaudoir's type, the latter must be regarded as a synonym of the present species.* Both were described from Texas, and the only two examples known to me are from that State.

B. oberthüri n. sp.

This name is proposed for the species which has heretofore been regarded in this country as *viridicolle* Laf., and to which that name was assigned in my paper on the North American species of the genus. The error was pointed out to me by Mons. Oberthür, and it is with great pleasure that I dedicate the species to him as a slight token of regard.

B. timidum Lec.

To this species *B. sordidulum* Chaud. must be referred.

B. contractum Say.

B. pilatei Chaud. is synonymous with this species.

B. constricticollis Hayw.

The arrangement of the dorsal punctures in this species is wrongly described in my paper on *Bembidium*. The two specimens known to me, when the description was written, were both badly rubbed, and the arrangement of the punctures is seen, on studying other material, to be practically the same as in *semistriatum* Hald. This is also observable in the type when examined under higher power. It should therefore be referred to the same group as the latter species.

* Since writing the above I have received word from Mons. Oberthür that *hamiferum* and *viridicolle* seem to him to belong to the same species.